### **Naval Petroleum and Oil Shale Reserves**

# **Proposed Appropriation Language**

For expenses necessary to carry out naval petroleum and oil shale reserve activities, [\$18,000,000], \$18,500,000 to remain available until expended: Provided, That, notwithstanding any other provision of law, unobligated funds remaining from prior years shall be available for all naval petroleum and oil shale reserve activities.

# **Explanation of Change**

The change reflects an increase in environmental restoration activities at NPR-1 and increased production activities at NPR-3.

# Naval Petroleum and Oil Shale Reserves Office of Fossil Energy

### Overview

# **Appropriation Summary by Program**

(dollars in thousands) FY 2005 FY 2004 FY 2006 Request vs Base Comparable Comparable FY 2006 FY 2006 Appropriation Appropriation Base Request \$ Change % Change 21,092 17,750 18,500 +605 17,895 +3.4%-3,097 0 0 0 0 0%

17,895

18,500

+605

+3.4%

**Detailed Funding Table** 

17,750

17,995

-	(dollars in thousands)		
	FY 2004	FY 2005	FY 2006
Naval Petroleum and Oil Shale Reserves (NPOSR)			
Production & Operations			
Production Operations	3,457	1,429	3,559
Environmental Restoration	4,779	4,168	4,483
Rocky Mountain Oilfield Testing Center	2,963	2,958	2,169
Total, Production & Operations	11,199	8,555	10,211
Management			
Program Direction	4,073	5,319	5,076
Equity	2,923	1,726	1,502
Business Management and Support	2,897	2,150	1,711
Total, Management	9,893	9,195	8,289
Subtotal, NPOSR	21,092	17,750	18,500
Use of Prior-Year balances	-3,097	0	0
Total, NPOSR	17,795	17,750	18,500

Naval Petroleum and

Reserves.....

Use of Prior-Year balances ......

Oil Shale

Total, Naval Petroleum and Oil Shale Reserves.....

#### **Preface**

Since the Naval Petroleum and Oil Shale Reserve (NPOSR) no longer served the national defense purpose envisioned in the early 1900s, the National Defense Authorization Act for Fiscal Year 1996 (P.L. 104-106) required the sale of the Government's interest in Naval Petroleum Reserve 1 (NPR-1). To comply with this requirement, the Elk Hills field in California was sold to Occidental Petroleum Corporation in 1998. Subsequently, the Department transferred two of the Naval Oil Shale Reserves (NOSR-1 and NOSR-3), both in Colorado to the Department of the Interior's (DOI) Bureau of Land Management. In January 2000, the Department also returned the NOSR-2 site to the Northern Ute Indian Tribe. Following the sale of Elk Hills and the transfer of the oil shale reserves, DOE retains two Naval Petroleum Reserve properties:

The Naval Petroleum Reserve 3 (NPR-3) in Wyoming (Teapot Dome field) - A stripper well oil field that the Department will maintain until it reaches its economic production limit. Environmental remediation efforts are underway, and the field is being used as the Rocky Mountain Oilfield Testing Center (RMOTC). Activities performed at RMOTC include field testing of new technology, evaluation of new equipment, and demonstration of new processes.

The Buena Vista Hills Naval Petroleum Reserve 2 (NPR-2) in California - A checkerboard pattern of government and privately owned tracts adjacent to the Elk Hills field. Of the 30,181 acres, 10,446 acres are owned by the government and leased by private oil companies.

#### **Strategic Context**

Following publication of the Administration's National Energy Policy, the Department developed a Strategic Plan that defines its mission, four strategic goals for accomplishing that mission, and seven general goals to support the strategic goals. Each appropriation has developed quantifiable goals to support the general goals. Thus, the "goal cascade" is the following:

Department Mission → Strategic Goal (25 yrs) → General Goal (10-15 yrs) → Program Goal (GPRA Unit) (10-15 yrs)

To provide a concrete link between budget, performance, and reporting, the Department developed a "GPRA" unit "concept. Within DOE, a GPRA Unit defines a major activity or group of activities that support the core mission and aligns resources with specific goals. Each GPRA Unit has completed or will complete a Program Assessment Rating Tool (PART). A unique program goal was developed for each GPRA unit. A numbering scheme has been established for tracking performance and reporting. b

The goal cascade accomplishes two things. First, it ties major activities for each program to successive goals and, ultimately, to DOE's mission. This helps ensure the Department focuses its resources on fulfilling its mission. Second, the cascade allows DOE to track progress against quantifiable goals and to tie resources to each goal at any level in the cascade. Thus, the cascade facilitates the integration of budget and performance information in support of the GPRA and the President's Management Agenda (PMA).

<sup>&</sup>lt;sup>a</sup> Government Performance and Results Act of 1993

<sup>&</sup>lt;sup>b</sup>The numbering scheme uses the following numbering convention: First 2 digits identify the General Goal that (01 through 07); second two digits identify the GPRA Unit; last four digits are reserved for future use.

#### Mission

The NPOSR mission has evolved to complete environmental remediation activities and determine the equity finalization of NPR-1, manage NPR-2, and operate NPR-3 while providing RMOTC as a field demonstration facility.

#### **Benefits**

The Department continues activities to finalize its Elk Hills equity interests with ChevronTexaco, coowner of Elk Hills. Under the *Equity Redetermination Process Agreement*, the ASFE is to impartially determine final equity shares between ChevronTexaco and the Department of Energy. The final equity determinations will be based on all four of the NPR-1 producing zones. Financial settlements will occur after final decisions, by the end of FY 2007.

The RMOTC program at NPR-3 continues to support the Administration's goal to develop new/alternative energy sources and energy efficiency technologies for use in the petroleum industry. RMOTC offers a place to perform hands-on, applied research (testing and demonstration) that is tailored to the U.S. independent oil producers helping speed new technology to the market place. Responding to the needs of industry, academia, and other research organizations on a case-by-case basis, RMOTC leverages government investment heavily with industry partnership and cost sharing. Based on historical data, RMOTC expects to complete an average of 15 projects per year with an average industry contribution of about 70 percent of the total project cost. Incidental benefits from RMOTC are realized by Naval Petroleum Reserve 3, including reduced operating costs and increased production through technologies and techniques tested. RMOTC's value is validated through the continuous and recurring use of the facility by industry and the large cost share that industry contributes.

# **Strategic Goal**

The Department's Strategic Plan identifies four strategic goals: one each for defense, energy, science, and environmental aspects of the mission plus seven general goals that tie to the strategic goals. The Naval Petroleum and Oil Shale Reserves appropriation supports the following goal:

Energy Strategic Goal: To protect our national and economic security by promoting a diverse supply and delivery of reliable, affordable, and environmentally sound energy.

General Goal 4, Energy Security: Improve energy security by developing technologies that foster a diverse supply of reliable, affordable and environmentally sound energy by providing for reliable delivery of energy, guarding against energy emergencies, exploring advanced technologies that make a fundamental improvement in our mix of energy options, and improving energy efficiency.

The programs funded within the Naval Petroleum and Oil Shale Reserves appropriation have one Program Goal that contributes to the General Goals in the "goal cascade". This goal is:

Program Goal 04.58.00.00: Maintain operational readiness of the SPR to drawdown at a sustained rate of 4.4 million barrels per day for 90 days, within 15 days notice by the President. Maintain a 2 million barrel reserve of home heating oil in the U.S. Northeast. Utilize the NPR #3 as a testing and demonstration field for the Rocky Mountain Oilfield Testing Center's ongoing research. Continue closeout and equity finalization activities related to NPR #1, and finalize settlement to the State of California with respect to its claims to "school lands".

#### **Contribution to General Goal**

The programs within the NPOSR appropriation contribute to General Goal 4 by: 1) Ensuring completion of environmental remediation, cultural resource activities, equity determination, and school lands compensation required as a result of the Elk Hills sale agreements; 2) Supporting the Administration's goal to develop new/alternative energy sources and energy efficiency technologies for use in the petroleum industry by using RMOTC/NPR-3 for testing and demonstration of upstream and environmental products; and 3) Managing NPR-2 leases.

RMOTC project focus areas include: oil and gas exploration and production; coalbed natural gas development; drilling and well completions; remote sensing. These projects will contribute to increased energy assurance, environmental restoration and remediation, renewable energy, and beneficial use of produced water.

# **Funding by General and Program Goal**

	(dol	(dollars in thousands)			
	FY 2004	FY 2005	FY 2006		
General Goal 4, Energy Security					
Program Goal 04.48.00.00, Petroleum Reserves	21,092	17,750	18,500		
Total, General Goal 4 (Naval Petroleum & Oil Shale Reserves)	21,092	17,750	18,500		

#### **Means and Strategies**

NPOSR will use various means and strategies to continue its mission and achieve program goals. The program continues work to close the remaining environmental findings, as required by the agreement between DOE and the California Department of Toxic Substance Control (DTSC). RMOTC will provide to industry a secure, low-risk environment to field evaluate, test, and validate their developing technologies.

#### **Validation and Verification**

NPOSR manages detailed, operational measures that are implemented by the contractors. Action plans are reviewed and analyzed at Program Reviews. These reviews provide an opportunity to discuss performance. Budget formulation/ execution assessments are regularly conducted throughout the year, including annual budget validations.

#### **Significant Program Shifts**

To meet the deadline set in the Authorization Act, it was necessary for the Department to commit to a number of activities after closing the sale of the Elk Hills site. The commitments were formalized in several legal agreements. A human health and an ecological Risk Assessment on the 131 DTSC areas of concern are primary activities supported by this budget. Following completion of the Risk Assessments, the program will complete appropriate Corrective Action Studies to determine cleanup in the field. Completion of Risk Assessments and Corrective Action Studies is scheduled for FY 2009.

Since 1996, the NPR-3 field in Wyoming has been focused on producing to its economic limit and pursuing a phased environmental restoration and equipment salvage program at those parts of NPR-3 that are no longer needed for operation. Fossil Energy's Oil Program has identified RMOTC, co-located with NPR-3, as a contributor in achieving its domestic supply R&D objective. RMOTC provides industry with a secure, low risk environment to field evaluate, test and validate their developing technologies. Incidental benefits are realized by NPR-3 through reduced operating costs and increased production through technologies and techniques tested.

# **Naval Petroleum and Oil Shale Reserves**

# **Funding by Site by Program**

(dollars in thousands)

	FY 2004	FY 2005	FY 2006	\$Change	%Change
Naval Petroleum & Oil Shale					
Reserves					
NPR California	6,550	5,534	6,516	+982	+17.7%
NPOSR – Colorado, Utah, Wyoming	9,632	8,836	9,004	+168	+1.9%
Washington Headquarters	4,910	3,380	2,980	-400	-11.8%
Total, Naval Petroleum and Oil Shale					_
Resrve	21,092	17,750	18,500	+750	+4.2%

# **Site Description**

# Naval Petroleum Reserve - California

The NPR-California field office, located in Bakersfield, California, is responsible for completing closeout activities, environmental remediation, and cultural resource assessment from the sale of the Elk Hills site.

### Naval Petroleum and Oil Shale Reserve -Colorado, Utah and Wyoming

The NPOSR – Colorado, Utah, and Wyoming (CUW), located in Casper, Wyoming supports activities to produce NPR-3 at the maximum efficient rate. This site is co-located with the Rocky Mountain Oilfield Testing Center - a testing and demonstration facility.

#### **Washington Headquarters**

The headquarters office located in Washington, DC supports the independent evaluation and recommendation of final equity for Elk Hills as well as the geologic, petrophysical and reservoir engineering services required to prepare and support the Government's equity position before an Independent Petroleum Engineer and the Assistant Secretary for Fossil Energy (ASFE). Program Direction funding for the NPR Headquarters staff (11 FTEs) in Washington, DC is also included in this category.

# **Production & Operations**

# **Funding Profile by Subprogram**

(dollars in thousands)

	FY 2004 Comparable Appropriation	FY 2005 Comparable Appropriation	FY 2006 Base	FY 2006 Request	FY 2006 Req \$ Change	uest vs Base % Change
Production & Operations	S					
Production						
Operations	3,457	1,429	1,429	3,559	+2,130	+149.1%
Environmental						
Restoration	4,779	4,168	4,168	4,483	+315	+7.6%
Rocky Mountain						
Oilfield Testing						
Center	2,963	2,958	2,958	2,169	-789	-26.7%
Total, Production &						
Operations	11,199	8,555	8,555	10,211	+1,656	+19.4%

#### **Public Law Authorization:**

P. L. 94-258, "Naval Petroleum Reserves Production Act" (1976)

#### Mission

The mission of the Production and Operations subprogram includes:

- Environmental remediation and cultural resource activities required as a result of the Elk Hills sale agreement. To meet the deadline set in the Authorization Act, it was necessary for the Department to commit to a number of activities after closing the sale. The commitments were formalized in several legal agreements between DOE, Occidental, Chevron, and the State of California. Activities include completing environmental and archaeological work; assessing sites where remediation was not completed before the sale; and concluding any lawsuits related to the operation of Elk Hills that had been brought by third parties against the Government and/or its contractors.
- Ongoing conventional oil field management and operations at NPR-3. Since 1996, the program's primary focus has been to operate NPR-3 in Wyoming to its economic limit. Initial estimates projected that the field would be shut-in by 2003, however, the favorable oil prices and application of new oil field strategies and technologies have arrested the decline in production. It is expected that profitable operations at NPR-3 will continue.
- Field testing and demonstration of upstream and environmental products at the Rocky Mountain Oilfield Testing Center (RMOTC), which is co-located with NPR-3.

 Management of leases associated with Naval Petroleum Reserve 2 in California (Buena Vista Hills).

### **Benefits**

Revenue from production and operation of the Naval Petroleum Reserve 3 in Wyoming (Teapot Dome field) is estimated to be over \$5 million dollars in FY 2006. Associated revenues from the NPR-2 leases are estimated at approximately \$2 million dollars.

The RMOTC program offers a place to perform hands-on, applied research (testing and demonstration) that is tailored to the U.S. independent oil producers helping speed new technology to the market place. Incidental benefits from RMOTC are realized by Naval Petroleum Reserve 3, including reduced operating costs and increased production through technologies and techniques tested. RMOTC projects will contribute to increased energy assurance, environmental restoration and remediation, renewable energy, and beneficial use of produced water.

# **Detailed Justification**

	(do	llars in thousands	)
	FY 2004	FY 2005	FY 2006
<b>Production and Operations</b>	11,199	8,555	10,211
<ul> <li>Production Operations</li> </ul>	3,457	1,429	3,559
Continue to maintain and produce approximate produce 440 barrels of oil and 1,400 gallor O&M activities for production facilities, we have the continue of the	ns of natural gas lic	quids per day). In	cludes routine

heavy field equipment, motor vehicles and capital projects where warranted to maximize

FY 2004 and FY 2005 funding continued routine O&M activities at NPR-3 for production facilities, well maintenance, electricity and utilities, buildings, roads, heavy field equipment, motor vehicles and capital projects to be undertaken provided oil prices warrant such expenditures.

production.

(dollars in thousands)
FY 2004 FY 2005 FY 2006

#### Environmental Restoration .....

4,779

4,168

4,483

Continue Elk Hills environmental and archeological closeout activities. Continue work to clean close 3 inactive permitted landfills. Perform a human health and an ecological Risk Assessment on the 131 California Department of Toxic Substances Control (DTSC) areas of concern. Following completion of Risk Assessments, complete appropriate Corrective Action Studies to determine cleanup in the field. Completion of Risk Assessments and Corrective Action Studies is scheduled for FY 2009. Continue negotiations with ChevronTexaco on the disposition of sites listed on Exhibit H of the Unit Plan Contract Termination Agreement.

FY 2004 and FY 2005 funding continued efforts to document the results of cultural resource work scheduled for completion in FY 2004. Released information to the public and curated artifacts at a facility meeting Federal curation standards. Continued plugging and abandonment of uneconomic wells and closing surface facilities at NPR-3 that were no longer required to support production operations.

# Rocky Mountain Oilfield Testing

Center .....

2,963

2,958

2.169

Continue field testing and demonstration of upstream petroleum and environmental products to support the Administration's goal to develop new/alternative energy sources and energy efficiency technologies for use in the petroleum industry.

FY 2004 and FY 2005 funding supported RMOTC programs including Carbon Management, Produced Water Management, Energy Assurance, Production Technology and Drilling Technology.

Total, Production and Operations.....

11,199

8.555

10,211

# **Explanation of Funding Changes**

FY 2006 vs. FY 2005 (\$000)

#### **Production and Operations**

# Program Direction Funding Profile by Category

(dollars in thousands/whole FTEs)

	FY 2004	FY 2005	FY 2006	\$ Change	% Change
NPR - California		1			
Salaries and Benefits	734	756	770	+14	+1.9%
Travel	28	28	25	-3	-10.7%
Support Services	0	0	0	0	0%
Other Related Expenses	217	257	260	+3	+1.2%
Total, NPR - California	979	1041	1055	+14	+1.3%
Full Time Equivalents	4	4	4	0	0%
NPOSR – Colorado, Utah, Wyoming					
Salaries and Benefits	1844	1950	1,950	0	0%
Travel	160	160	141	-19	-11.9%
Support Services	0	0	0	0	0%
Other Related Expenses	0	513	452	-61	-11.9%
Total, NPOSR – Colorado, Utah, Wyoming	2004	2,623	2,543	-80	-3.0%
Full Time Equivalents	15	17	17	0	0%
Headquarters					
Salaries and Benefits	1040	1,200	1,057	-143	-11.9%
Travel	50	52	46	-6	-11.5%
Support Services	0	226	199	-27	-11.9%
Other Related Expenses	0	177	176	-1	-0.1%
Total, Headquarters	1,090	1,655	1,478	-177	-10.7%
Full Time Equivalents	10	11	11	0	0%
Total Program Direction					
Salaries and Benefits	3,618	3,906	3,777	-129	-3.3%
Travel	238	240	212	-28	-11.7%
Support Services	0	226	199	-27	-11.9%
Other Related Expenses	217	947	888	-59	-6.2%
Total Program Direction	4,073	5,319	5,076	-243	-4.6%
Total Full Time Equivalents	29	32	32	0	0%

# Management

# **Funding Profile by Subprogram**

(dollars in thousands)

	FY 2004 Comparable Appropriation	FY 2005 Comparable Appropriation	FY 2006 Base	FY 2006 Request	FY 2006 Req \$ Change	uest vs Base % Change
Management						
Program						
Direction	4,073	5,319	5,464	5,076	-388	-7.1%
Equity Business	2,923	1,726	1,726	1,502	-224	-13.0%
Management						
& Support	2,897	2,150	2,150	1,711	-439	-20.4%
Total, Management	9,893	9,195	9,340	8,289	-1,051	-11.3%

#### **Public Law Authorization:**

P. L. 94-258, "Naval Petroleum Reserves Production Act" (1976)

#### Mission

The mission of the Management subprogram is to support business management activities for all active sites, NPR-1 closeout, and NPR-2 lease management. Support for the settlement of equity shares with ChevronTexaco, the minority owner of Elk Hills, is a major activity for which geologic, petrophysical and reservoir engineering services are required to prepare and support the Government's equity position before an Independent Petroleum Engineer and the Assistant Secretary for Fossil Energy (ASFE).

### **Benefits**

The final equity determinations will be made on all four of the NPR-1 producing zones. Financial settlements will occur after final decisions have been made, by the end of FY 2007.

# **Detailed Justification**

	(dollars in thousands)				
	FY 2004	FY 2005	FY 2006		
Management	9,893	9,195	8,289		
Program Direction  Provides salaries, travel, contractor support management and execution of the NPOSR		,	<b>5,076</b> required for		
• Salaries and Benefits	rs and 21 in the fiel gineering, financial	d) performs policy management, pro	curement,		
• Travel  Provides travel to assure the accomp	238 plishment of progra	240 am mission.	212		
• Support Services	decisions. FY 2004	4 requirements we			
• Other Related Expenses	s, utilities, building	leases, supplies a			
■ Equity  The Dry Gas Zone, Carneros Zone and Sterecommendation for the Shallow Oil Zone May 2003. The final recommendation is no until 2007 for final ASFE decision.	was issued by the i	ized. A provision ndependent petrol	eum engineer in		

FY 2004 and FY 2005 funding supported the independent petroleum engineer, legal support, and expert technical analysis/ consultation required to support the final Fossil Energy decision.

(dollars in thousands)

		/
FY 2004	FY 2005	FY 2006

**Business Management & Support ....** 

2,897

2,150

1,711

Continue payments for post-employment medical and dental benefits to former Management & Operating (M&O) contractor employees. For NPR-2, ensure compliance of the 17 lease agreements expected to generate \$2.0 million in royalty revenues. Continue general operational and administrative support at the field sites.

Total, Management .....

9,893

9,195

8,289

# **Explanation of Funding Changes**

FY 2006 vs. FY 2005 (\$000)

# Management

Mandatory increase for Cost of Living adjustment and general pay raise	+145
Decrease in equity finalization support activities	
Decrease in travel and other related expenses	388
Decrease in operational support activities	<u>-439</u>
Total Funding Change, Management	906

# NAVAL PETROLEUM AND OIL SHALE RESERVES PROJECTED FEDERAL REVENUES

(Dollars in thousands)

		FY 2004			FY 2005			FY 2006	
			Nav	al Petroleum I	Reserve No	. 3			
	Production	Price	Revenues (\$000)	Production	Price	Revenues (\$000)	Production	Price	Revenues (\$000)
Crude Oil	466 BOPD	\$35.39	\$6.319	432 BOPD	\$40.00	\$6,307	399 BOPD	\$41.00	\$5,971
Liquid Products	1,150 GPD	\$.67/gal	\$283	1,400 GPD	\$.60/gal	\$307	1,400 GPD	\$.65/gal	\$332
Total NPR-3			\$6,602			\$6,614			\$6,303
	Naval Petroleum Reserve Number 2 (Royalties from 17 Lease Agreements)								
	Production	Price	Revenues (\$000)	Production	Price	Revenues (\$000)	Production	Price	Revenues (\$000)
Crude Oil	162 BOPD	35.95	\$2,126	168 BOPD	\$41.34	\$2,535	174 BOPD	\$42.34	\$2,689
Natural Gas	640 MCF/D	2.30	\$534	660 MCF/D	\$2.30	\$554	683 MCF/D	\$2.30	\$573
Liquid Products	408 GPD	\$.30/gal	\$45	424 GPD	\$.30/gal	\$46	439 GPD	\$.30/gal	\$48
Total NPR-2			\$2,705			\$3,135			\$3,310
TOTAL NPOSR REVENUE			\$9,307			\$9,749			\$9,613

# NAVAL PETROLEUM AND OIL SHALE RESERVES PROJECTED FEDERAL REVENUES

(Dollars in thousands)

	FY 2007			FY 2008			FY 2009		
Naval Petroleum Reserve No. 3									
	Production	Price	Revenues (\$000)	Production	Price	Revenues (\$000)	Production	Price	Revenues (\$000)
Crude Oil	353 BOPD	\$42.00	\$5,626	338 BOPD	\$43.00	\$5,305	310 BOPD	\$44.00	\$4,979
Liquid Products	1,300 GPD	\$.70/gal	\$332	1,300 GPD	\$.75/gal	\$358	1,200 GPD	\$.80/gal	\$350
Total NPR-3			\$5,958			\$5,661			\$5,329
				l Petroleum Ro lties from 17 L					
	Production	Price	Revenues (\$000)	Production	Price	Revenues (\$000)	Production	Price	Revenues (\$000)
Crude Oil	180 BOPD	\$43.34	\$2,847	180 BOPD	\$44.34	\$2,907	180 BOPD	\$45.34	\$2,979
Natural Gas	707MCF/D	\$2.30	\$593	707 MCF/D	\$2.40	\$619	707 MCF/D	\$2.40	\$619
Liquid Products	456 GPD	\$.30/gal	\$50	456 GPD	\$.31/gal	\$52	456 GPD	\$.31/gal	\$52
Total NPR-2			\$3,490			\$3,578			\$3,650
TOTAL NPOSR REVENUE			\$9,448			\$9,239			\$8,979